OIPE IAP97
FEB 13 2008
PATENT & TRADEMARK OFFICE

Fig. 1 (Background Art)

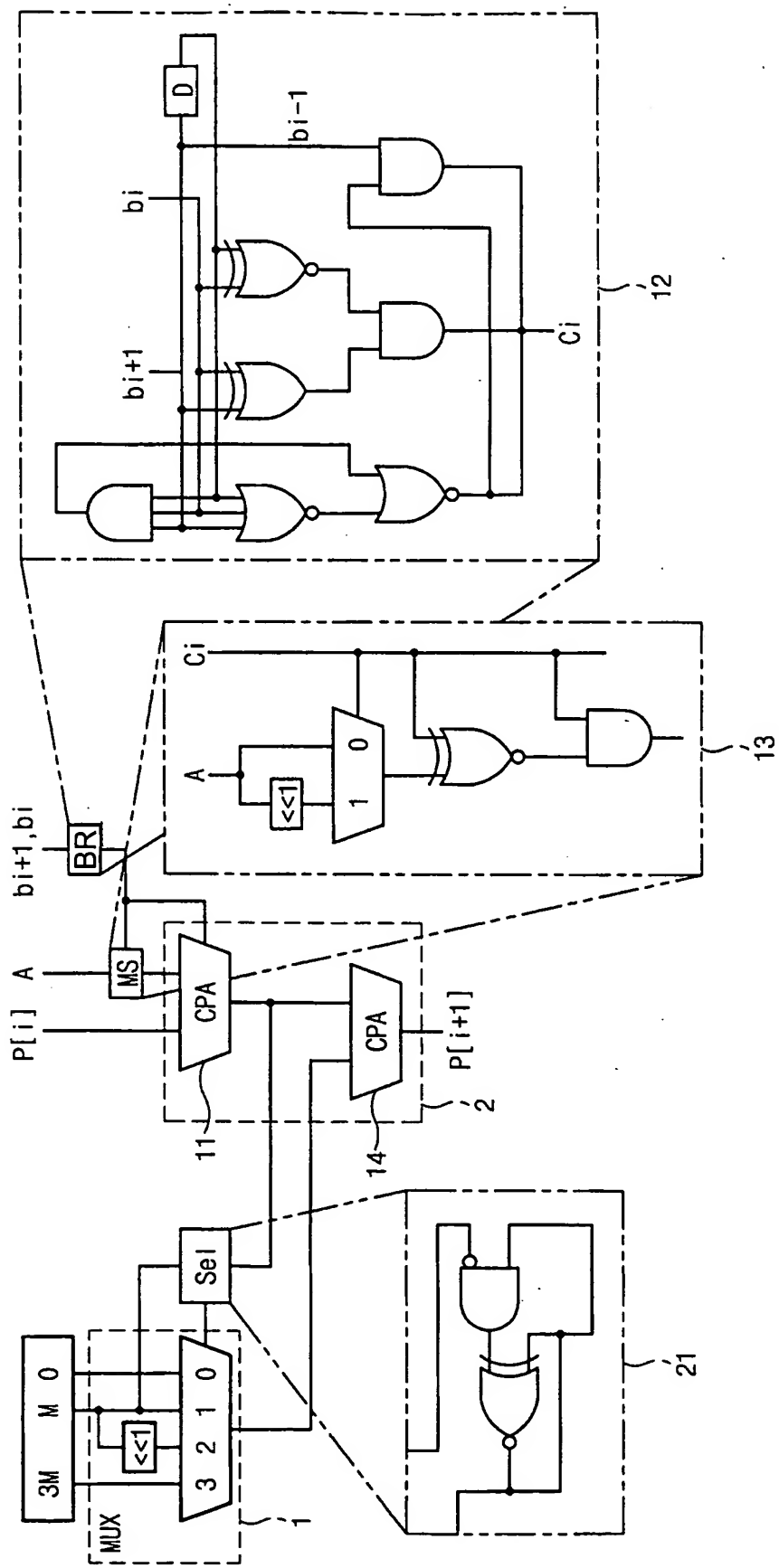


Fig. 2

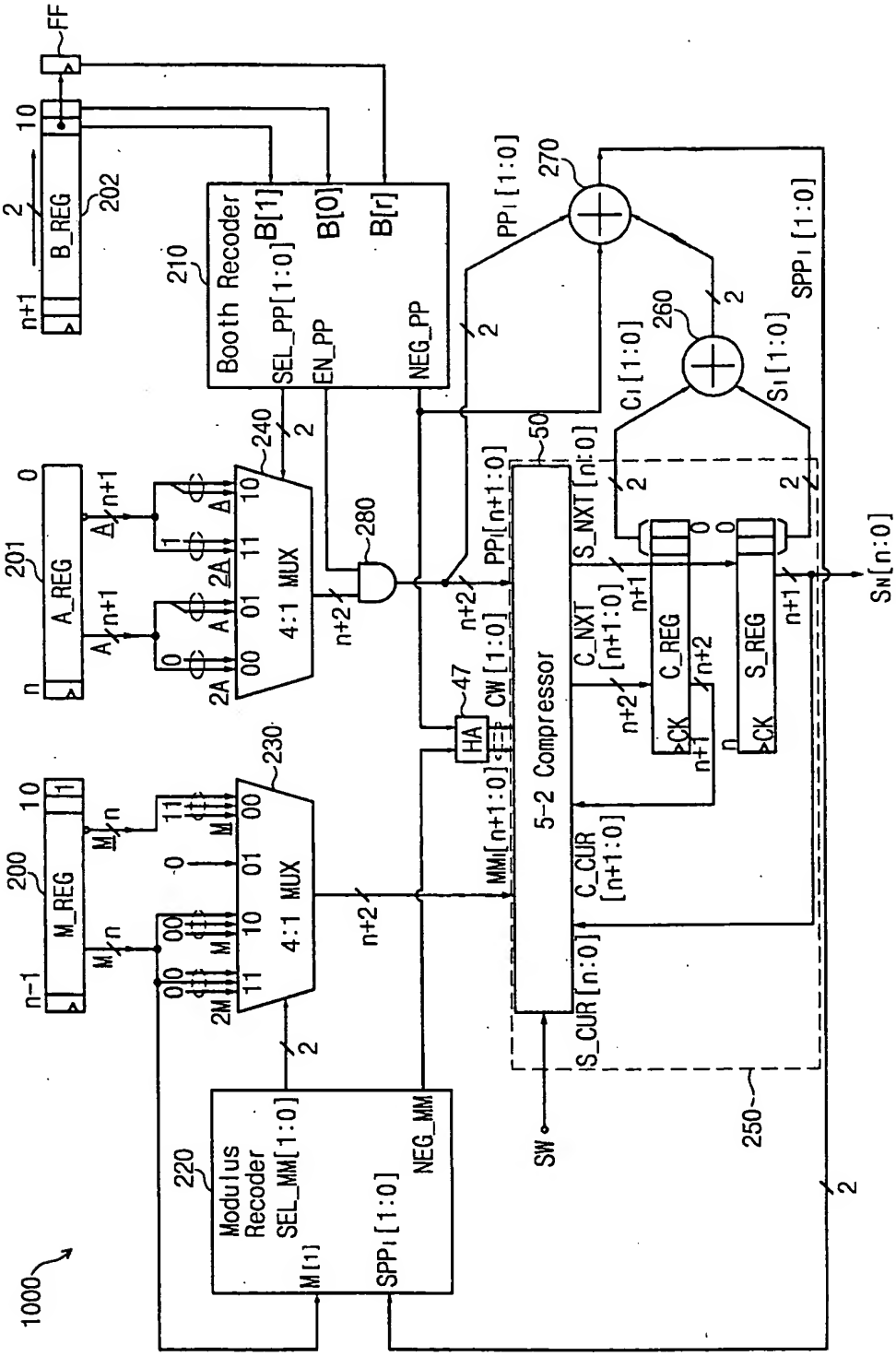

1000
FF
B_REG
202
Booth Recoder
210
SEL_PP[1:0]
EN_PP
NEG_PP
B[1]
B[0]
B[r]
A_REG
201
M_REG
200
4:1 MUX
240
230
280
HA
47
CW[1:0]
PP[n+1:0]
50
5-2 Compressor
MM[n+1:0]
C_CUR [n+1:0]
S_CUR[n:0]
C_NXT [n+1:0]
S_NXT[n:0]
C_REG
S_REG
CK
PP1[1:0]
270
260
C1[1:0]
S1[1:0]
SPP1[1:0]
SN[n:0]
250
SW
Modulus Recoder
220
SEL_MM[1:0]
M[1]
SPP1[1:0]
NEG_MM

Fig. 4

Inputs of BR(210)			Outputs of BR(210)			Selected $PP_I[n+1:0]$
B[1]	B[0]	B[r]	SEL_PP[1:0]	EN_PP	NEG_PP	
0	0	0	Don't care	0	0	0
0	0	1	00	1	0	A
0	1	0	00	1	0	A
0	1	1	10	1	0	2A
1	0	0	11	1	1	2A
1	0	1	01	1	1	A
1	1	0	01	1	1	A
1	1	1	Don't care	0	0	0

Fig. 5

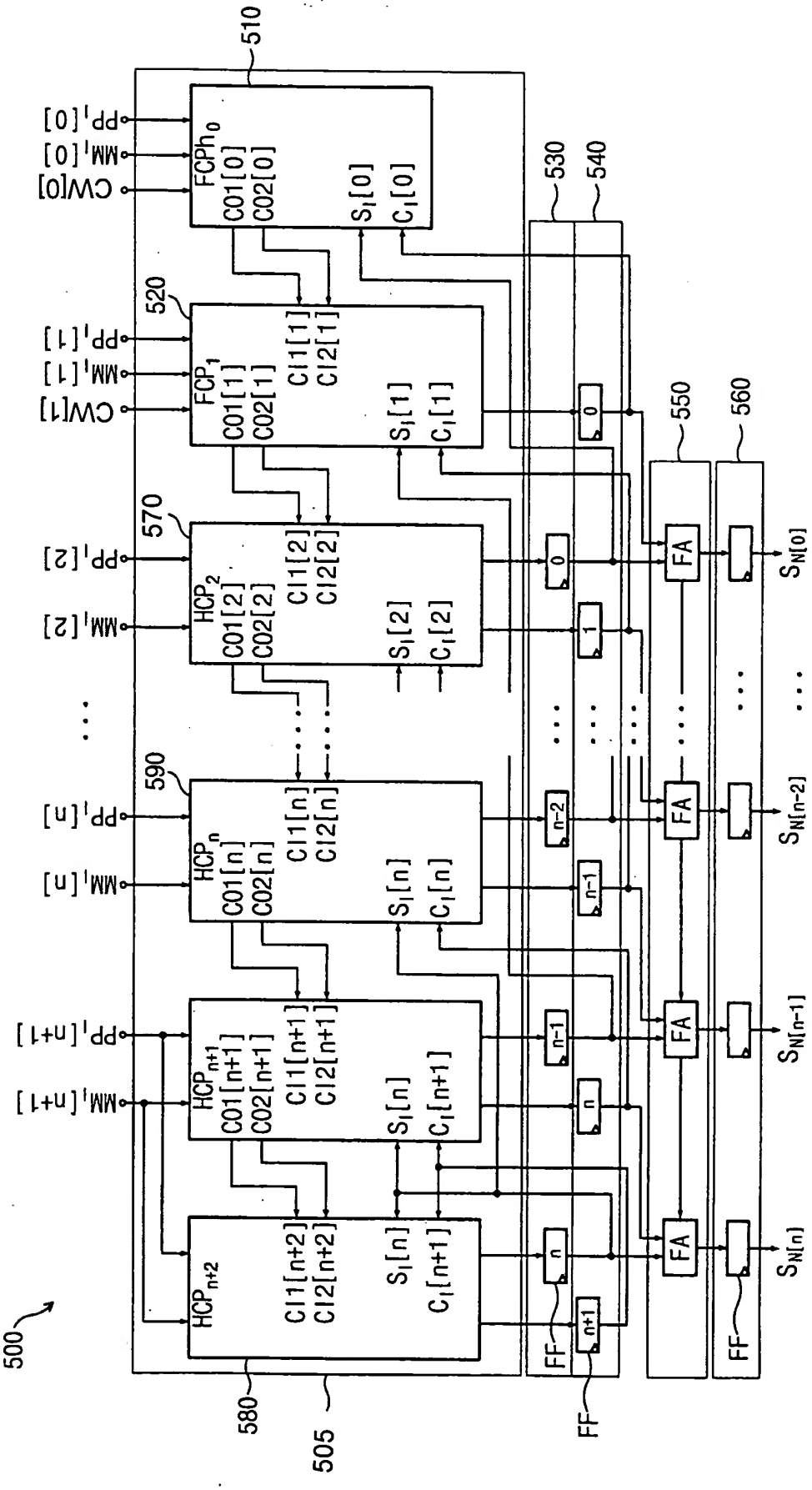

500
505
510
520
530
540
550
560
570
580
590
FCPh0
FCP1
HCP2
HCPn
HCPn+1
HCPn+2
FA
FF

Fig. 8

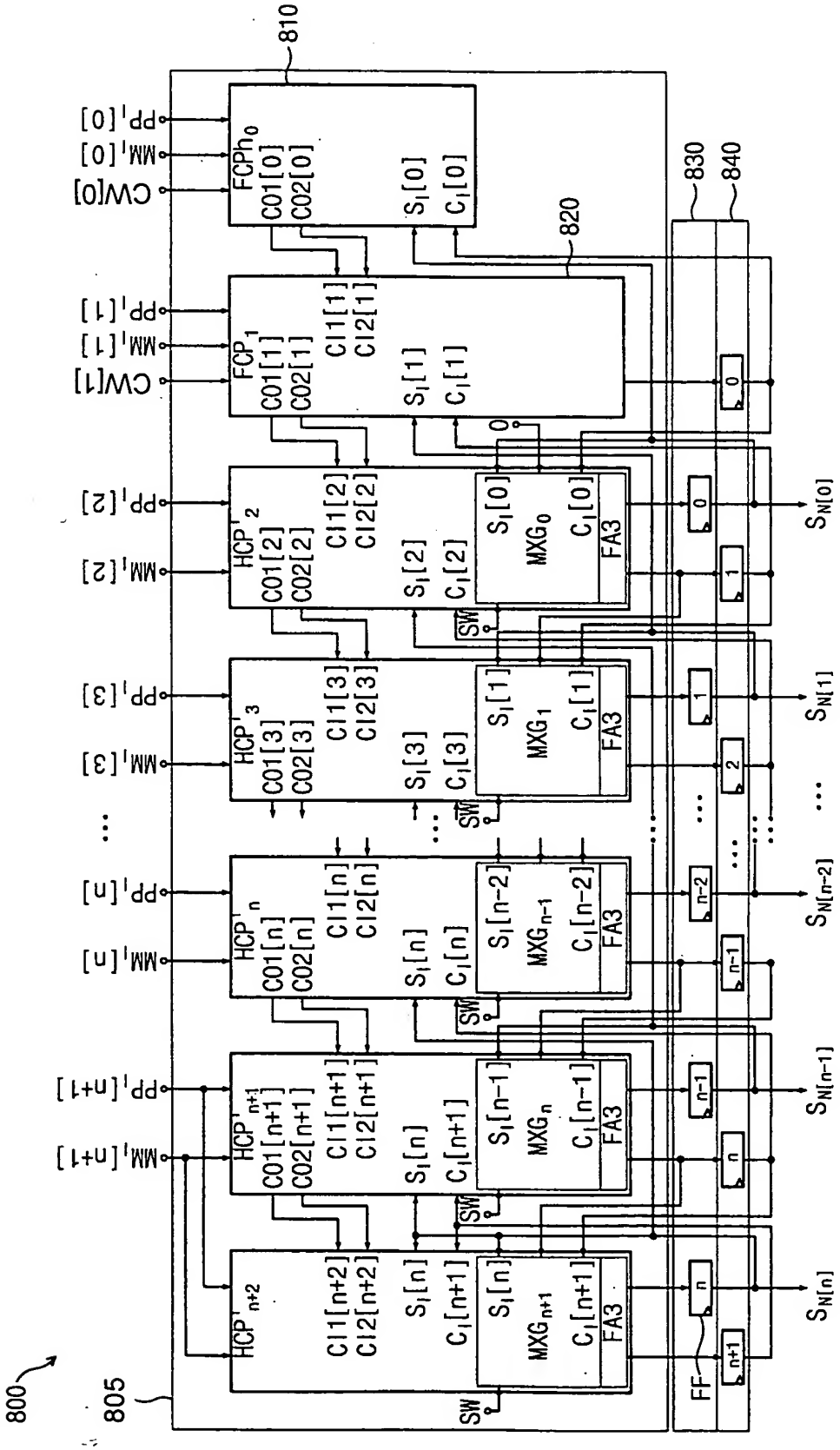

800
805
810
820
830
840
FCPh0
FCP1
HCP'2
HCP'3
HCP'n
HCP'n+1
HCP'n+2
FA3
MXG0
MXG1
MXGn-1
MXGn
MXGn+1
SW
FF

Fig. 1 (RELATED ART)

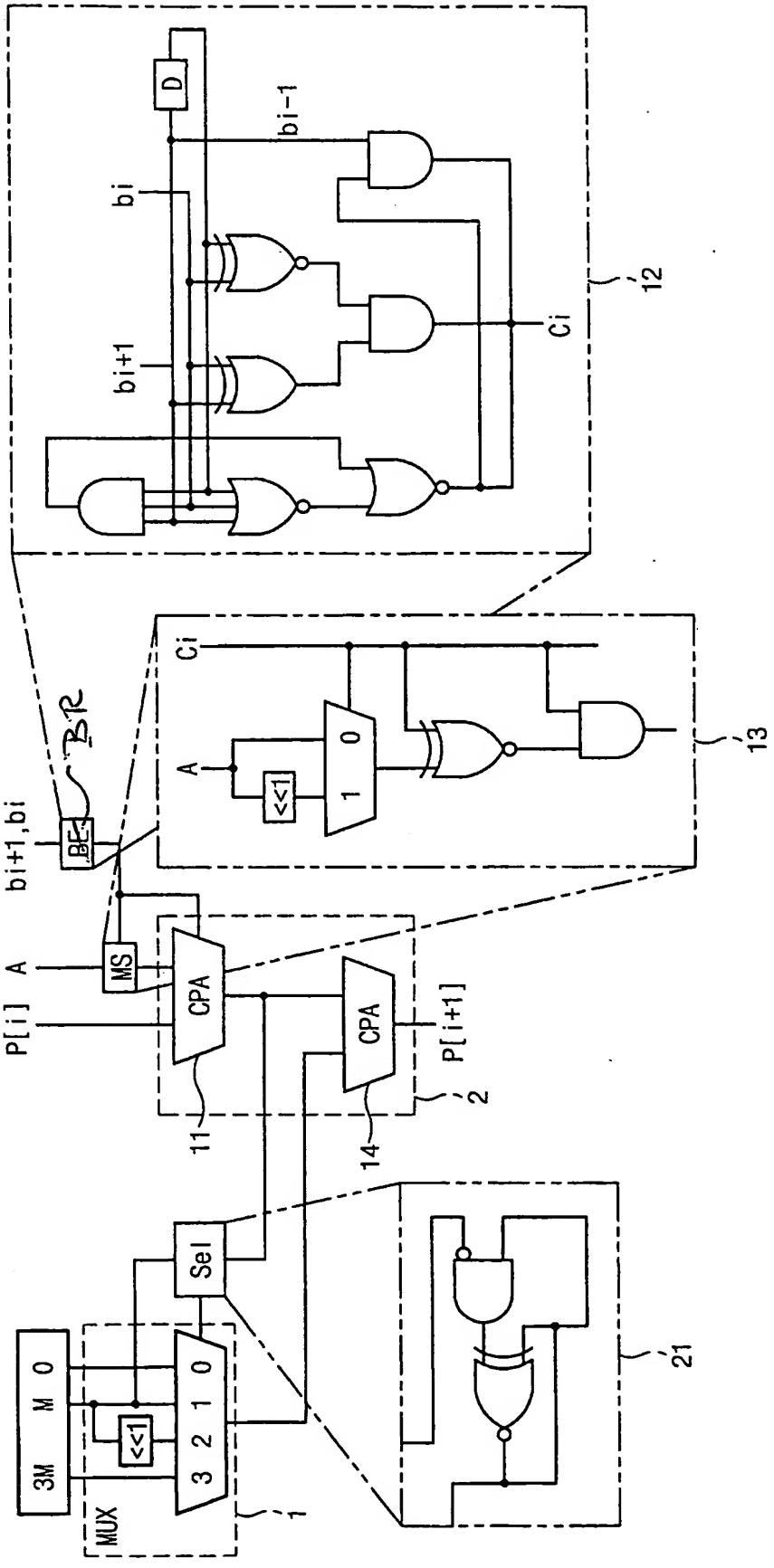


Fig. 2

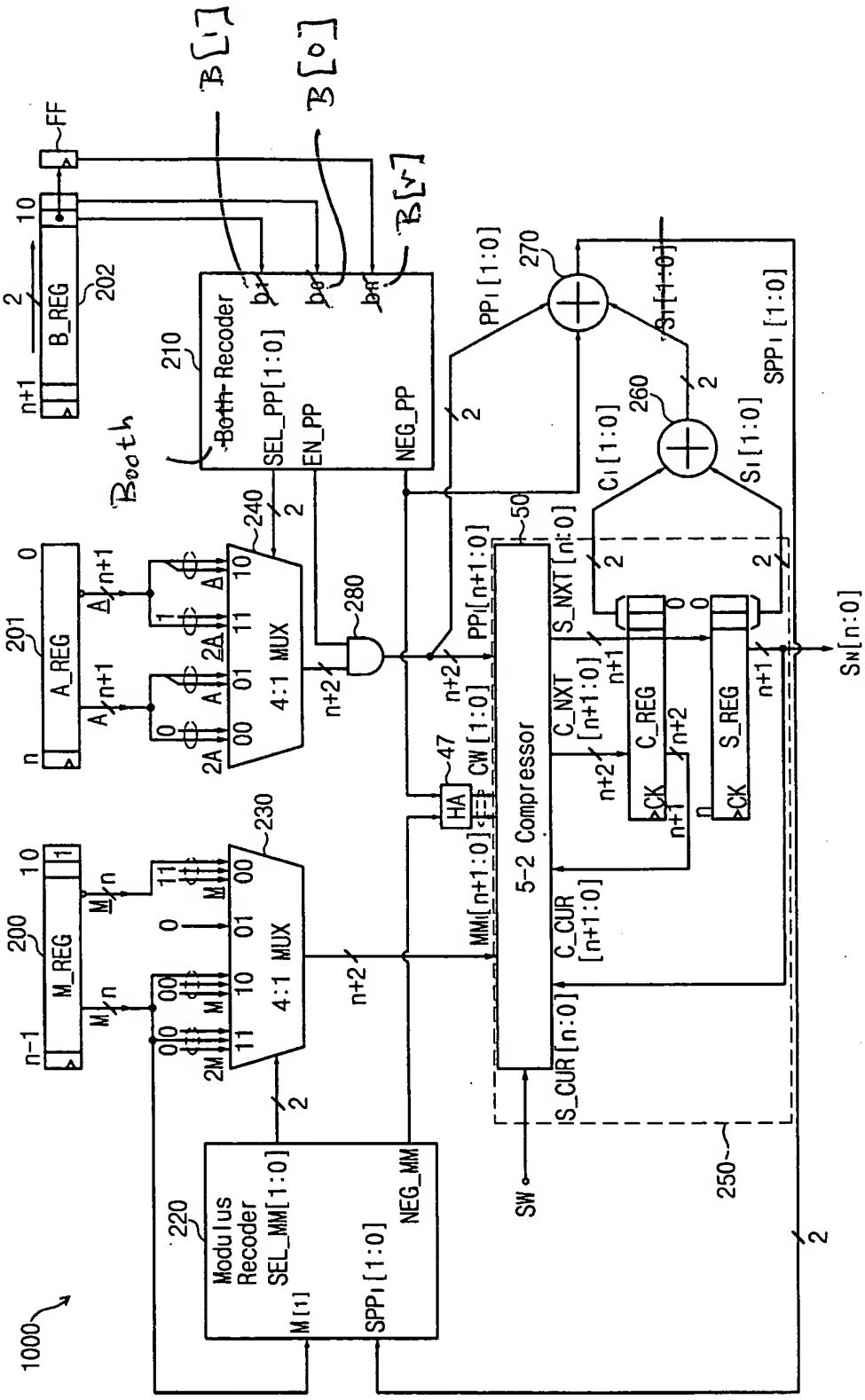

B[1]
B[0]
B[n]
FF
B_REG
202
Booth Recoder
210
SEL_PP[1:0]
EN_PP
NEG_PP
A_REG
201
4:1 MUX
240
280
M_REG
200
4:1 MUX
230
Modulus Recoder
220
SEL_MM[1:0]
SPP1[1:0]
NEG_MM
HA
47
CW[1:0]
MM[n+1:0]
PP[n+1:0]
50
5-2 Compressor
C_CUR [n+1:0]
S_NXT [n:0]
C_NXT [n+1:0]
C_REG
S_REG
PP1[1:0]
270
260
C1[1:0]
S1[1:0]
SPP1[1:0]
SW
IS_CUR[n:0]
250
SN[n:0]
1000

Fig. 4

Inputs of BR(210)			Outputs of BR(210)			Selected $PP_I[n+1:0]$
$b_{-1}B[i]$	$b_0B[i]$	$b_RB[i]$	SEL_PP[1:0]	EN_PP	NEG_PP	
0	0	0	Don't care	0	0	0
0	0	1	00	1	0	A
0	1	0	00	1	0	A
0	1	1	10	1	0	2A
1	0	0	11	1	1	2A
1	0	1	01	1	1	A
1	1	0	01	1	1	A
1	1	1	Don't care	0	0	0

Fig. 5

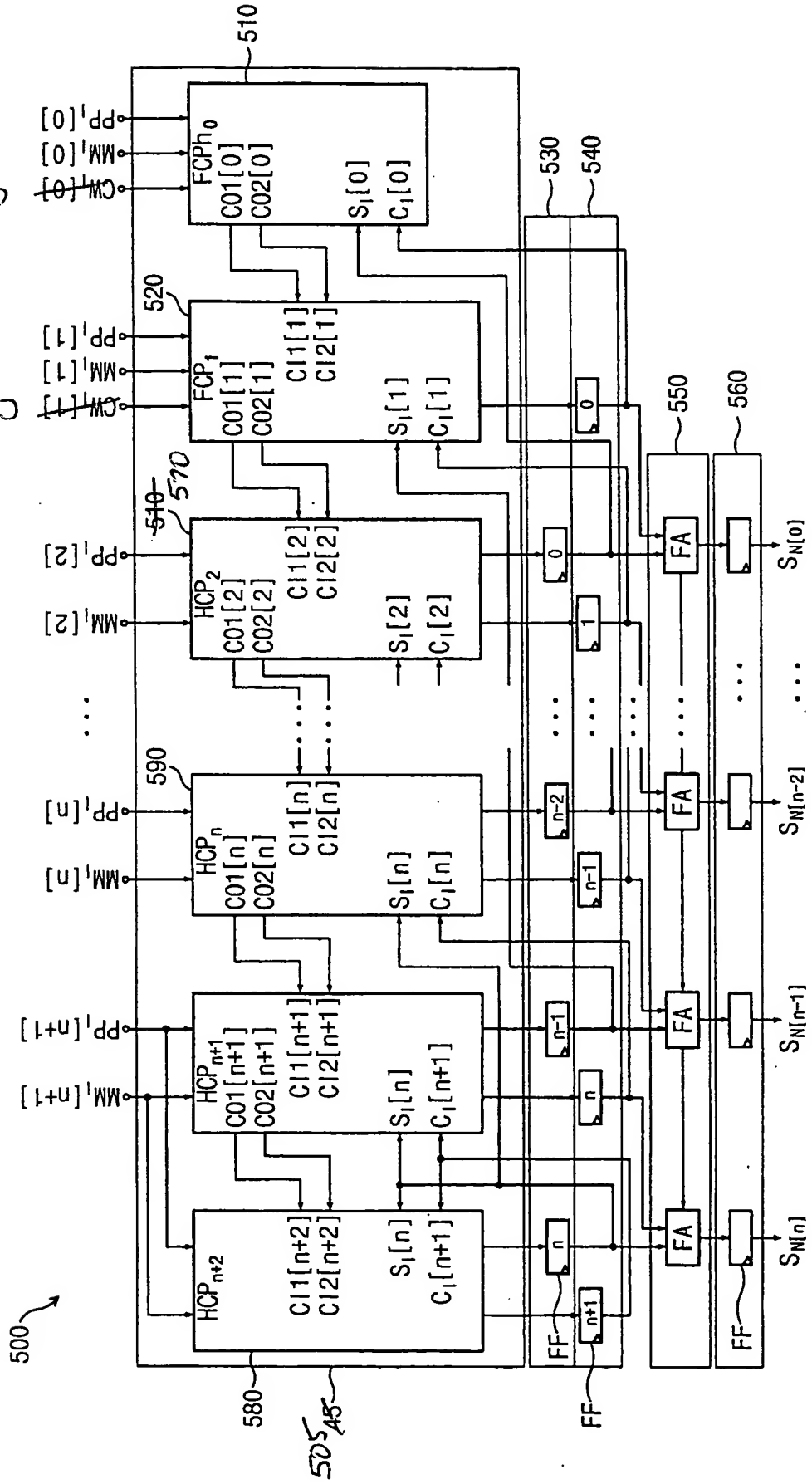
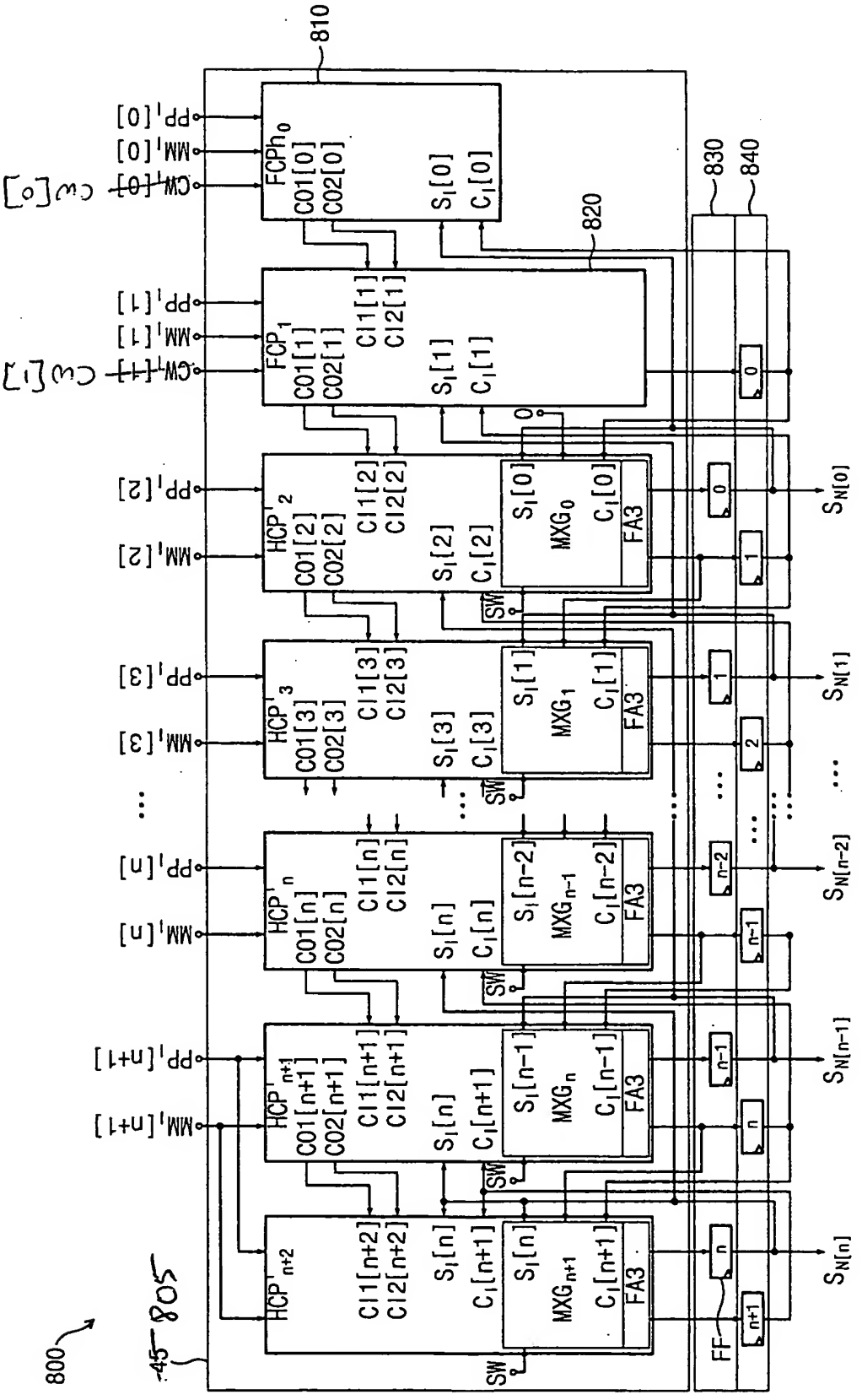

500
510
520
530
540
550
560
580
590
FCPh0
FCP1
HCP2
HCPn
HCPn+1
HCPn+2
FA
FF
PPI[0]
MMI[0]
PPI[1]
MMI[1]
PPI[2]
MMI[2]
PPI[n]
MMI[n]
PPI[n+1]
MMI[n+1]
CO1[0]
CO2[0]
CO1[1]
CO2[1]
CO1[2]
CO2[2]
CO1[n]
CO2[n]
CO1[n+1]
CO2[n+1]
CI1[1]
CI2[1]
CI1[2]
CI2[2]
CI1[n]
CI2[n]
CI1[n+1]
CI2[n+1]
CI1[n+2]
CI2[n+2]
SI[0]
CI[0]
SI[1]
CI[1]
SI[2]
CI[2]
SI[n]
CI[n]
SI[n]
CI[n+1]
SN[0]
SN[n-2]
SN[n-1]
SN[n]

Fig. 8


800
805
810
820
830
840
FCPh0
FCP1
HCP'2
HCP'3
HCP'n
HCP'n+1
HCP'n+2
FA3
SW
FF
SN[0]
SN[1]
SN[n-2]
SN[n-1]
SN[n]